

ABSTRACT OF THE DISCLOSURE

An amount of toner transfer on a reference pattern is calculated by using an optical detecting unit that detects both regular reflection light and diffuse reflection light from a detection target simultaneously, based on a relative ratio between a value obtained by subtracting a result of multiplying a "diffuse reflection output" by a "minimum value of a ratio between a regular reflection output and the diffuse reflection output" from the "regular reflection output" of the density detection reference pattern, and a value obtained by subtracting a result of multiplying the "diffuse reflection output" by a "minimum value of a ratio between the regular reflection output and the diffuse reflection output" from the "regular reflection output" in the background of a transfer belt or an intermediate transfer body.